

PREMIUM BRAND



HIGH DENSITY
**BUILDING
INSULATION**

NEW AND IMPROVED
SPUN ROCK WOOL

Extrusion-Spun Insulation For All Building Types

SEALED BATT BLANKETS

- with built-in vapor barrier

BLOWING WOOL

- for pneumatic installations

HAND-PAK POURING WOOL

- special size for pouring

World's Largest Independent Rock Wool Manufacturers

COLORADO INSULATING DIVISION

1805 W. IRVINGTON PLACE, DENVER, COLORADO

MINERAL WOOL INSULATIONS DIVISION

P. O. BOX 96, FONTANA, CALIFORNIA

ROCK WOOL INSULATING DIVISION

P. O. BOX 914, PUEBLO, COLORADO

TEXAS ROCKWOOL DIVISION

P. O. BOX 184, BELTON, TEXAS

PREMIUM BRAND INSULATION GROUP

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MINERAL ROCK WOOL

Premium Brand insulations are made of a new and improved type of mineral wool. This high efficiency building material is formed by extruding molten rock (2660° F), with air or steam, into a fibrous form. The fibers are spun which improves overall qualities. Premium Brand extrusion-spun insulations are available only in premium high density types.

ADVANTAGES

■ Reduced Air-Conditioning Costs

Smaller air conditioning units, reducing operating costs, are possible because of the high insulating efficiency of Premium Brand insulation.

■ Sound Deadening

Premium Brand batt blankets, having an effective sound absorption characteristic, minimize the transmission of noise.

■ Fuel Savings Up to 40%

Since many buildings furnished with Premium Brand insulation show reductions in fuel consumption up to 40%, smaller heating plants with associated savings in fuel and equipment are possible.

■ Non-conductor of Electricity

Electrical insulation resistance is high. Premium Brand fibers do not break down when subjected to high voltages.

■ Fire Resistant

Premium Brand mineral rock wool fibers cannot burn. Located in walls and ceilings it acts as an effective fire barrier, blocking the natural route of flames.

■ Vermin Resistant

Premium Brand fibers are inorganic, offer no sustenance for rodent or other vermin life.

■ Sanitary—Odorless

Completely safe, Premium Brand insulation is free of unstable elements. Will not corrode, rust, stain or give off odors.

■ High Stability and Permanence

Premium Brand rock wool insulation is made from an ageless material, never requires maintenance of any kind, will not settle, the fibers do not absorb moisture.

PREMIUM BRAND PRODUCTS

Preformed Batts Available in five thicknesses for any installation requirement. Provided with integral built-in vapor barrier, extra-wide for easy installation.

Blowing Wool Manufactured specifically for applications using pneumatic equipment for installation. Has all of the Premium Brand advantages.

HAND-PAK Pouring Wool Hand pouring applications are easy to install using this Premium Brand quality product. Specially sized for pouring, with all of the Premium Brand advantages.

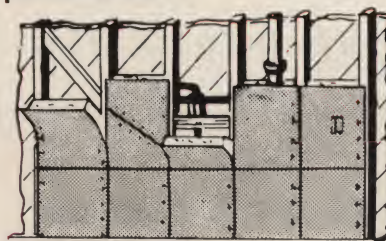
Federal Specifications Premium Brand insulation products conform to the requirements of the following federal Standards, and are guaranteed to meet all FHA and VA requirements if properly installed.

Federal Bureau of Standards; Specification No. HH-1-521C

U. S. Dept. of Commerce; Standard No. CS 105-48

APPLICATION

preformed batts



WALL



ROOF RAFTERS

blowing wool



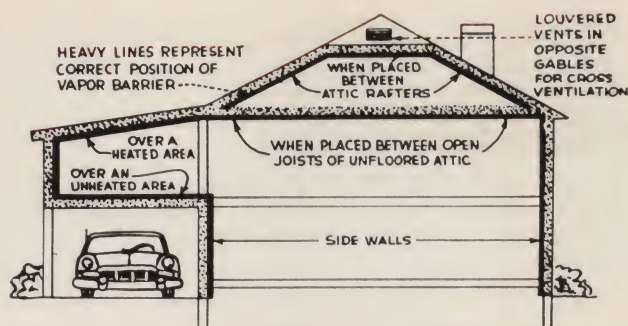
HAND-PAK pouring wool



Blowing and Pouring Wool

Premium Brand blowing and pouring wools are specially designed for easy installation, usually in existing buildings. Either type finds wide application, although the pouring wool is primarily intended for smaller installations, such as residential jobs. Premium Brand blowing wool, for use with standard pneumatic equipment, can generally be installed in the least time and is especially adaptable for big jobs. Recommended density in compliance with Federal Specification HH-1-521C, is 2.0 lbs. per cubic foot.

EASY TO INSTALL

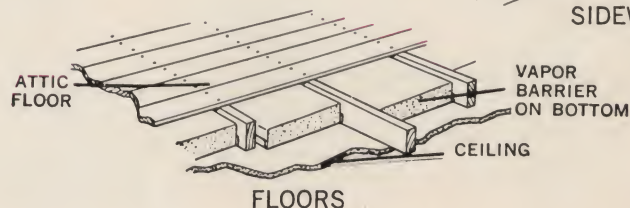
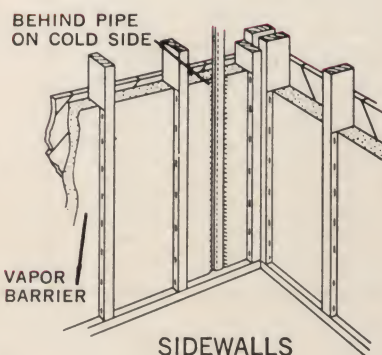
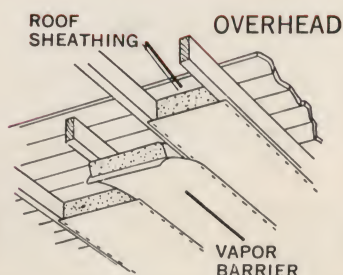


Premium Brand insulations are specially designed for new construction, but may be used with equal insulating protection in existing structures. The advantages of Premium Brand insulations are the same for all types whether batt blankets, blowing or pouring wool is used. All types are easy to install, the type actually used is determined by preference. The wide, triple-thick, tough stapling flanges of the integral vapor barrier of the Premium Brand batt blankets, assure extra-easy and quick installation; the semi-rigidity of these high density blankets also helps to make installation faster.

BUILT-IN VAPOR BARRIER

Preventing the passage of water vapor is no problem when Premium Brand sealed batt blankets with an integral built-in vapor barrier are used. Condensation of water within the insulation will lower the insulating value, this condition should always be avoided.

INSTALLATION DATA



Premium Brand batt blankets should always be installed with edges butted snugly, leaving no open areas. A general rule to always follow is to locate the batt so that the vapor barrier is on the warm side of the room. Protect pipes from freezing by placing insulation between pipe and exterior of building.

Batts may be recessed between studs, or may be placed flush between the framing so that it will not interfere with later installation of wallboard, etc. Support batts in horizontal or sloped locations by interior room finish, wallboard, staples, wire mesh, or other means.

architectural specifications

Unless otherwise shown on the plans, all insulation shall be furnished and installed according to these specifications. Insulation shall be: (specify those types applying)

1. Premium Brand high density extrusion-spun rock wool batt blankets (specify: full, semi, or economy thickness).
2. Premium Brand rock wool blowing wool.
3. Premium Brand rock wool pouring wool . . . as supplied by the manufacturers of Premium Brand insulations.

Entire installation shall be completed in a neat workmanlike manner, in accordance with the manufacturer's instructions.

recommendations

To permit escape of water vapor in winter and prevent excessive heat in summer, attics should be ventilated above insulation. Screened or louvered vents at opposite ends of attic will result in maximum cross ventilation. Combined vent area should be 1 sq. ft. per 100 sq. ft. of attic floor area.

Crawl space under buildings with no basement should be ventilated below floor insulation. Combined vent area should be 6 sq. ft. per each 100 lineal feet of enclosing wall, plus $\frac{1}{2}$ of 1% of the area enclosed. Locate vents for maximum cross ventilation, as high as possible on the wall.

PRODUCT DATA

Batt blankets Type	Widths Inches	Thickness Inches (nominal)	Length Inches	Conductance
6" thick	15, 19, 23	6	48	0.05
Jumbo-thick	15, 19, 23	4	48	0.07
Full-thick	11, 15, 19, 23	3	48, 96	0.09
Semi-thick	11, 15, 19, 23	2	48, 96	0.13
Economy-thick	11, 15, 19, 23	1½	48, 96	0.18
Aluminum-Wrapped	15, 19, 23	3 and 2	48	see note*

*NOTE: Because of variable factors, such as direction of heat flow, temperature gradient, etc., please refer to ASHAE Guide for values of reflective surfaces.

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ENGINEERING DATA

PROPERTIES



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Thermal Resistance

R factor is 1/k or 3.70 per inch of thickness. See below for other details.

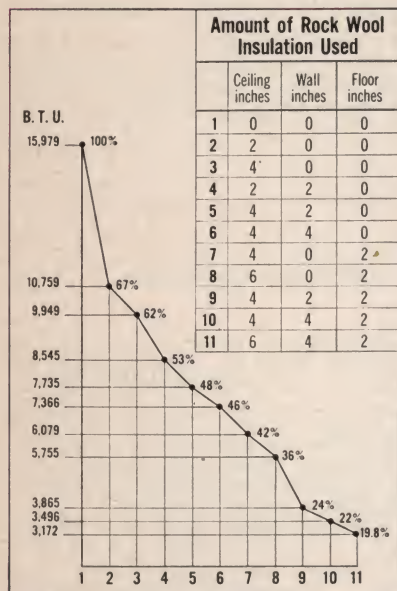
Thermal Conductivity—Batt Blankets

k factor is 0.27 per inch of thickness for insulation in a dry condition at a density of 2.70 lbs. per cubic foot.

Fire Resistance (Incombustible)

No evidence of flaming, smoking or glowing observed at 1690° F, elapsed time test of 40 minutes.

HOW ROCK WOOL INSULATION AFFECTS HEAT LOSS



In order to point out the effect of insulation when applied to certain areas of a structure, this graph has been prepared combining the effect of different combinations of insulation on heat loss. It is important to realize that this graph does not reveal the percentage of operating cost or equipment size saved, but reveals the percentage of loss through these areas only.

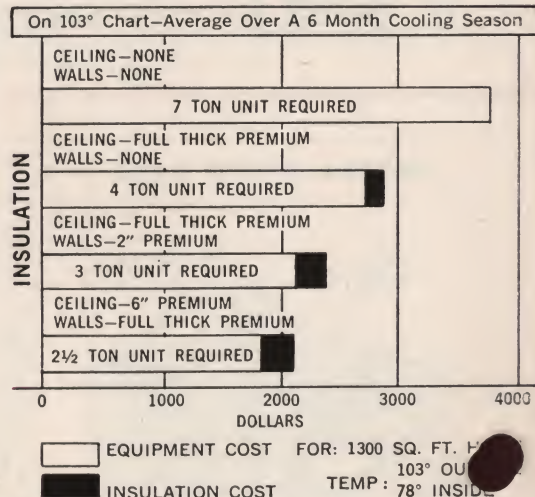
For the purpose of this graph, a one story brick veneer house with a crawl space beneath the floor has been used. It is also assumed that this house contains 900 square feet of floor area and a net wall area (windows and doors not included) of 738 square feet.

Rockwool insulation has been applied in several combinations, eleven to be exact. The poorest example is no insulation in any of the areas. The best insulation example used is the one with 6 inches in the ceiling, 4 inches in the wall, and 2 inches under the floor. This is the point beyond which additional insulation could not be justified.

Insulation helps to reduce the size of heating equipment required. This in turn means a lower equipment cost. It also contributes to lower fuel consumption which means lower operating cost. The proper amount of insulation also helps to minimize cold walls, ceilings, and floors. This reduces drafts and the feeling of being cold as heat is being lost by radiation to a cold surface.

AMOUNT OF INSULATION—EQUIPMENT COST

1300 Sq. Ft. residence Frame & Stucco construction slab floor—3' overhang vented attic above ceiling fully weatherstripped.



HEAT LOSS

Thermal Coefficients

The rate of heat flow through one inch thickness of a single kind of material is called the thermal "conductivity" or "k" factor.

The rate of heat flow through any thickness other than one inch or through a composite material of any thickness, is called the "conductance" or "C factor." It is determined by dividing the k factor by the thickness.

The rate of heat flow through a combination of materials forming a wall, floor, ceiling or other construction is called the "U" value.

The resistance to heat flow through any of the above units of material or construction is called the "heat resistance" or "R factor." It is the reciprocal of each of the three coefficients defined above. It is found by dividing the coefficient in each case into 1.

All four coefficients are expressed in British thermal units (Btu) per sq. ft., per hour, per degree of temperature difference between the two surfaces of the material or construction.

Technical Service Available

We are always willing to handle your building insulation problem, and offer the services of our skilled staff consisting of competent engineers and technicians in the insulation business. If

How To Calculate Rate Of Heat Loss

Tests have established the heat resistance coefficient of all common building materials. With the heat resistance of the components of any given construction, it is a simple matter of arithmetic to determine the total resistance and from it, calculate the rate of heat loss or "U" value of the construction.

To calculate the "U" value of an average wall using typical resistances follows:

	Resistances are:
Exterior Surface	0.17
Wood Clapboard Siding	0.78
1/2" Gypsum Sheathing	0.35
Premium Brand Full-thick Batt Blankets	11.10
1/2" Gypsum Wallboard	0.35
Interior Surface	0.61
Total Resistance	13.36

To find the "U" value, i.e. reciprocal of the heat resistance, divide the resistance total into 1 and get 0.075—the number of Btu lost per hour through each square foot of the wall for each degree of temperature difference between its opposite surfaces.

you have a specific application that you would like to discuss, we will be glad to help you select the proper insulation for your installation. Of course, you incur no obligation for this service.

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Phone: SHERman 4-2779

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P. O. Box 96, Fontana, Calif.
Phone: VALley 2-8061

ROCK WOOL INSULATING DIVISION
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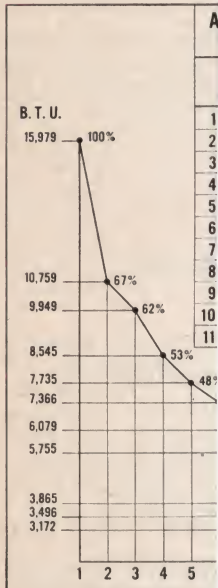
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HEAT LOSS

Thermal Coefficients

The rate of heat flow through a kind of material is called the thermal coefficient.

The rate of heat flow through a kind of material is called the "conductance" or the k factor by the thermal engineers.

The rate of heat flow through a wall, floor, ceiling or roof is called the U value.

The resistance to heat flow through a material or construction is called the "R factor." It is the reciprocal of the U value defined above. It is the sum of the R factors of all the materials in the case into 1.

All four coefficients are expressed in terms of per sq. ft., per hour, per unit of temperature difference between the two surfaces.

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EQUIPMENT COST

Stucco construction
above ceiling fully



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